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Opinion
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Prejudice, Interests, Jealousy: Inappropriate Peer Reviewers May Be Exacerbating Inequality in Academic Publication in Health Research

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Since the emergence of the peer review, it seems that the various stakeholders (governments, publishers, academic institutions, editors and researchers, etc.) of academic publication all over the world have acquiesced that reviewers can act as gatekeepers of academic publication and guarantee the quality of published papers. However, due to factors such as the reviewer's knowledge background, professionalism, personal experience, and the time available for peer review, the actual value of peer review has received increasing attention and questioning.[1] Some researchers have pointed out that the primary prerequisite for scientific research is the randomization of the selection of study subjects and the setting of controls. However, the peer review model has been accepted by a group of people who claim to respect science most without any random selection and control group settings.[2] It has to be said that this contains some irony and ridiculousness.

In addition to my role as a health services and policy researcher, I am also an academic editor of a peer-reviewed journal. Therefore, I am not only concerned with the hotly debated question of whether reviewers are truly acting as gatekeepers to academic publication, but I am also very concerned with the role that reviewers play in maintaining equality in academic publication. Based on my experience and previous studies, I believe that many times, due to the bias, interests and jealousy of reviewers, there are obvious inequalities in academic publication in the field of global health. Moreover, this phenomenon seems to be intensified. I would like to emphasize that I believe that the fairness of academic publication includes not only whether reviewers can maintain objective neutrality and review each manuscript fairly in the face of researchers of different countries, races and languages, but also whether reviewers can objectively and fairly evaluate the value of each research result without delaying or even failing to publish the papers of other researchers due to personal interests or jealousy.

Prejudice: Researchers in Low- or Middle-Income Countries (LMIC) Have Difficulty Making Their Voices Heard

A series of labels, such as LMIC, developing countries and the Global South, are a stark reminder of the existence of prejudice for all, and global health is no exception. Researchers labeled as such find themselves excluded and marginalized as authors of health research publications, and are recipients of unconscious biases that influence the decision-making

process of major journal editors.[3] Previous study found that compared with poor countries, most people associate good research with rich countries.[4] Although research on health inequality has grown exponentially in the 50 years from 1966 to 2015, the global North-South research gap still exists, and in some cases continues to expand. High-income countries, particularly Anglo-Saxon and European countries, disproportionately dominate first authors and co-authors, and are at the heart of a global collaborative research network, with the rest of the world (i.e., the Global South) on the margins of this activity.[5] When I worked on manuscripts as an academic editor, I also found the same phenomenon. Compared with manuscripts whose authors are all from LMIC, when authors are all or partly from high-income countries, reviewers are more willing to accept the review invitation and give a higher proportion of positive comments. It has to be said that this is an extremely anxious and worrying situation.

Interests and Jealousy: Research Findings that Should be Discovered by More People Are Passed Into Oblivion

A common solution for bias in peer review is to adopt single blind or double-blind peer review.[6] However, the reality may not be satisfactory. Studies have shown that some reviewers will take the authors' research ideas and even results for themselves, hinder publication by deliberately delaying review or rejecting the manuscript, and then present themselves as authors seeking publication.[7] Other studies have shown that reviewers from China are more likely to reject manuscripts from Chinese authors than reviewers from USA and European countries.[8] In my opinion, the main reason for these phenomena is from the reviewer's pursuit of interests and jealousy. As we all know, today's researchers are facing enormous pressure to survive. Whether it is to enter a higher school, promote a professor, get a good job or apply for a research fund, it is essential to publish peer-reviewed academic papers, especially if they can be published in recognized top journals. The direct and invisible benefits are enormous. For example, some researchers have calculated that publishing a highly cited paper can add $13,500 to a paper's author's annual salary,[9] and publishing in a top-tier journal will undoubtedly increase the paper's exposure and lead to more citations. Therefore, the huge benefits prompt the reviewers to have the motivation to take the research results that have the potential to be published on the top journal as their own. At the same time, as researchers and reviewers from the same country or region, there may be some competitive relationships and conflicts of interest that cannot be identified by simple technical means, which makes it possible for reviewers to be jealous and not want the author's manuscript to be published. Perhaps this goes some way to explaining why only 8.1% of reviewers are willing to sign their names to public review reports.[10] Moreover, compared with the prejudice that has formed a consensus, the interests and jealousy existing in the reviewers have not received more attention because they are more hidden and difficult to identify.

What Can We Do?

The prejudice, interests and jealousy held by reviewers cannot be avoided or eliminated. However, academic publishers and editors of academic journals have the responsibility and obligation to improve this problem. I think there may be several things to do.

1. When selecting reviewers for manuscripts, especially those from LMIC, consider a

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combination of high-income countries combined with LMIC that are different from the countries of the manuscript authors.
2. To implement truly transparent peer review, each published paper should be published with online peer review report content, author response and peer reviewer's name.
3. When making the final decision with reference to the reviewer's opinion, the editor should pay special attention to the reviewer's opinion which gives rejection suggestions but lacks specific reasons and details, and should have the courage to give up these unreasonable opinions.
4. Establish a blacklist of reviewers within the journal, add those reviewers who have given, especially those who have given unreasonable review opinions many times to the blacklist, and no longer invite them to review. At the same time, such reviewers should be specially tagged on sites like Publons to remind other journals to choose them as reviewers.
5. In the author's guidance, the policy and process of complaints are emphasized. And editors need to carefully review each author complaint to assess whether there are possible wrong decisions. At the same time, if possible, it should be considered to disclose the content of the author's complaint and the evaluation process and final decision of the editor like transparent peer review. Complaints should be made to truly serve the author, rather than placed in the author's guidance as a political correctness.

Challenges We Face in the Future

While the above measures may play a positive role in promoting equity in scholarly publishing, we must also address the challenges we face in peer review.

First, it is becoming increasingly difficult to find qualified reviewers.[11] A survey[12] of Nature readers in 2022 found that since March 2020, about a third of readers have reduced their peer review activity, and the more senior researchers are less involved in peer review. Reviewers may have become overwhelmed by the heavy burden of peer review. A study[13] published in 2021 showed that in 2020, about 8.54 million papers in the global academic community received 21.8 million peer reviews, consuming a total of 130 million hours of global reviewers. Another study[14] published in 2016 showed that in the biomedical field alone, reviewers spent 63.4 million hours on peer review in 2015. Although new technologies have been used to try to reduce the burden on reviewers in terms of data availability, calculation accuracy and scientific analysis of manuscripts, there is still a lack of efficient, consistent and accepted methods.[15,16]

Second, reviewers have provided a great deal of unpaid work to ensure the quality of scientific publishing, but have received very little recognition. In 2020, the monetary value of the peer review work of American reviewers will be $1.5 billion, and the monetary value of the review work of Chinese reviewers will be $626 million. This means that one year of free peer review by reviewers from the two major research countries could save the academic publishing industry $2.125 billion in labor costs.[13] Economic incentives are not effective incentives for busy professionals who value more free access to journals, the ability to track the latest research in the field, the annual official acknowledgement on the journal's website, and the appointment of a journal editorial board.[17] We must therefore seriously consider the important but unrewarded work of peer review. Does the scholarly publishing industry have too many unrealistic expectations of altruism from reviewers? And how should we affirm the value of the reviewer's work, lest more and more reviewers suspect that peer review is an unpleasant job? *Journal of Korean Medical Science* (*JKMS*) provides a good example,[18] but we can do more.

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Finally, it is also important to cultivate more reviewers.[19,20] Although editors prefer senior researchers when inviting reviewers, in the future we may have to face the fact that most journals can only ask early career researchers to review. So, what are the trainings for these young researchers, what are the forms of training, and how can the training effects be evaluated to help them grow quickly into qualified reviewers? This will be the problem we have to face.

The above questions may not have answers for the time being, and the entire academic community and the publishing industry need to work together to find answers.

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